

What is claimed is:

1. An ISDN rerouting device provided with a first and a second IP-based PBX systems that are connected to a first or a second telephone terminal, respectively, via telephone lines, and further, that are connected to each other via an IP network and ISDN; wherein:
  - 5 said first and second IP-based PBX systems establish a communication call between said first telephone terminal and said second telephone terminal via said ISDN when congestion occurs in said IP network.

2. An ISDN rerouting device according to claim 1 wherein said first and second IP-based PBX systems are provided with:
  - an LC (line circuit) for linking with said first or
  - 5 said second telephone terminal;
  - a TDSW (time division switch) for switching connection paths;
  - an IP-TRK (trunk circuit) for both interfacing with said IP network and detecting the occurrence of
  - 10 congestion in said IP network;
  - an ISDN I/F for interfacing with said ISDN; and
  - a CPU for controlling switching of said TDSW (time division switch) when said IP-TRK (trunk circuit) detects the occurrence of congestion in said IP network.

3. An ISDN rerouting device according to claim 1 wherein said CPU establishes a communication call between said first telephone terminal and said second telephone terminal based on information stored in a memory.

4. An ISDN rerouting device according to claim 2 wherein said CPU establishes a communication call between said first telephone terminal and said second telephone terminal based on information stored in a memory.

5. An ISDN rerouting device according to claim 3 wherein said memory stores:

a mapping table containing IP addresses and ISDN addresses; and

5 a rerouting information table containing:  
originating telephone numbers or calling party numbers, destination telephone numbers or called party numbers, IP addresses of destination IP-TRK, and ISDN addresses that correspond to IP addresses of destination  
10 IP-TRK.

6. An ISDN rerouting device according to claim 4 wherein said memory stores:

a mapping table containing IP addresses and ISDN addresses; and

5           a rerouting information table containing:  
originating telephone numbers or calling party  
numbers, destination telephone numbers or called party  
numbers, IP addresses of destination IP-TRK, and ISDN  
addresses that correspond to IP addresses of destination  
10          IP-TRK.

7.         An ISDN rerouting method that is provided  
with: first and second IP-based PBX systems that are both  
connected to a first or a second telephone terminal,  
respectively, via telephone lines and that are connected  
5          to each other via an IP network and ISDN; and that  
reroutes to said ISDN when congestion occurs in said IP  
network; comprising:

10         a first step of establishing, by means of said first  
and second IP-based PBX systems, a communication call  
between said first telephone terminal and said second  
telephone terminal via said ISDN when congestion occurs  
in said IP network.

8.         An ISDN rerouting method according to claim 7  
wherein said first step comprises:

15         a second step of linking with said first or second  
telephone terminal by means of an LC (line circuit);  
5            a third step of switching the connection path by  
means of a TDSW (time division switch);

a fourth step of both interfacing with said IP network and detecting the occurrence of congestion in the IP network by means of an IP-TRK (trunk circuit);

10 a fifth step of interfacing with said ISDN by means of an ISDN I/F; and

a sixth step of effecting switching control of said TDSW (time division switch) by means of a CPU when said IP-TRK (trunk circuit) detects the occurrence of  
15 congestion in said IP network.

9. An ISDN rerouting method according to claim 8 wherein said sixth step includes a seventh step of establishing a communication call between said first telephone terminal and said second telephone terminal  
5 based on information that is stored in memory.

10. An ISDN rerouting method according to claim 9 wherein said seventh step includes an eighth step of storing in said memory: a mapping table having IP addresses and ISDN addresses; and a rerouting information  
5 table having originating telephone numbers or calling party numbers, destination telephone numbers or called party numbers, IP addresses of destination IP-TRK, and ISDN addresses corresponding to IP addresses of destination IP-TRK.